

**Supplemental Table 1. List of southern African IBV strains analysed**

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
147868	2010	Grandparents	North West	OR742743
148576	2010	Broilers	North West	
149399	2010	Broilers	Western Cape	OR742739
152309	2010	Broilers	North West	
132309 H3	2010	Broilers	Gauteng	
151934 H6	2010	Broilers	North West	
151934 H6	2010	Broilers	North West	
167453	2011	Broilers	North West	
168218	2011	Broilers	Free State	
168355	2011	White leghorns	Gauteng	OR742765
174787	2011	Broilers	Western Cape	
175829 H3	2011	Broilers	Mpumalanga	OR742726
175958	2011	Broilers	North West	
176633	2011	Broilers	Mpumalanga	
193307	2011	Broilers	North West	
152953 H9	2011	Broilers	North West	
154830 H6	2011	Broilers	Free State	
154830 H7	2011	Broilers	Free State	
169490	2011	Broilers	North West	OR704347
172175 #2	2011	Broilers	North West	
172175 -7 #3	2011	Broilers	North West	
172324-2	2011	Broilers	Free State	
172324 4	2011	Broilers	Free State	OR742744
174443 TR	2011	Layers	Western Cape	PQ738166
175744 KD H1	2011	Broilers	Free State	
175744 KD H1	2011	Broilers	Free State	
175744 KD H5	2011	Broilers	Free State	
175834 TR	2011	Broilers	North West	
193970-3	2011	broilers	Free State	
193970-4	2011	broilers	Free State	
193970-6	2011	broilers	Free State	
186039	2012	Broilers	Gauteng	
187596	2012	Broilers	North West	
187803	2012	Broilers	North West	
188172	2012	Broilers	North West	
188225	2012	Broilers	North West	
189122	2012	Broilers	North West	
189390	2012	Broilers	North West	
189628	2012	Broilers	North West	
189853	2012	Broilers	North West	
190866	2012	Broilers	Mpumalanga	
191145	2012	Broilers	Free State	
191930	2012	Broilers	North West	
192943	2012	Broilers	North West	
193013	2012	Layers	Gauteng	
193043	2012	Broilers	North West	
193138	2012	Broilers	North West	
193304	2012	Broilers	Free State	
193311	2012	Broilers	North West	OR742753
193366	2012	Layers	Mpumalanga	
193368	2012	Layers	Gauteng	
193602	2012	Broilers	Mpumalanga	
193774	2012	Broilers	Mpumalanga	
193921	2012	Layers	Western Cape	
194413	2012	Broilers	North West	
194822	2012	Broilers	North West	
195324	2012	Broilers	North West	

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
195696	2012	Broilers	Mpumalanga	
195854	2012	Broilers	North West	
196674	2012	Broilers	North West	
196723	2012	Broilers	North West	
197318	2012	Broilers	North West	
197346	2012	Broilers	Gauteng	
197346	2012	Broilers	Gauteng	
197826 H6	2012	Unknown	Unknown	OR742748
198544	2012	Rearing	Gauteng	
198565	2012	Broilers	Free State	
198573	2012	Unknown	Unknown	
199262	2012	Broilers	Mpumalanga	
199341	2012	Broilers	North West	
200931	2012	Broilers	Free State	
200957	2012	Broilers	North West	
201106	2012	Broilers	North West	OR742758
201106	2012	Broilers	North West	
201208	2012	Broilers	Limpopo	
201216	2012	Broilers	North West	
201216	2012	Broilers	North West	OR727107
201300	2012	Broilers	Botswana	
201351	2012	Broilers	North West	
201351	2012	Broilers	North West	
201591	2012	Broilers	North West	
201602	2012	Broilers	North West	OR742754
202348	2012	Broilers	North West	
203097	2012	Broilers	Gauteng	
203100	2012	Broilers	Gauteng	
203106	2012	Broilers	Gauteng	
203110	2012	Broilers	Gauteng	
206101	2012	Broilers	Mpumalanga	
233607	2012	Broilers	Free State	
187464 KN H2 AF	2012	Broilers	Western Cape	
187464 KN H3	2012	Broilers	Western Cape	
187464 TR H1 AF	2012	Broilers	Western Cape	
187464 TR H2 AF	2012	Broilers	Western Cape	
187464 TR H2 YS	2012	Broilers	Western Cape	
187464 TR H3 AF	2012	Broilers	Western Cape	
187521 H1	2012	White leghorns	Gauteng	OR742763
187521 H2	2012	White leghorns	Gauteng	
197270 H2	2012	Broilers	North West	
197270 H3	2012	Broilers	North West	
197666 H2	2012	Broilers	Gauteng	
197666 H4	2012	Broilers	Gauteng	
197677 H1	2012	Broilers	North West	
197677 H2	2012	Broilers	North West	
198007 H2	2012	Broilers	North West	
198007 H3	2012	Broilers	North West	
198007 H4	2012	Broilers	North West	
198442 CE	2012	Broilers	Free State	
198442 SF	2012	Broilers	Free State	
198442 TR	2012	Broilers	Free State	
198999 B9	2012	Broilers	North West	
200656 H3	2012	Broilers	North West	
200656 H4	2012	Broilers	North West	
200656 H4	2012	Broilers	North West	
200677 HA	2012	Broilers	North West	
200677 HB	2012	Broilers	North West	
200963 H5	2012	Broilers	North West	

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
200963 H7	2012	Broilers	North West	
200963 H7	2012	Broilers	North West	
205069 AF H6	2012	Broilers	Free State	
205069 YS H6	2012	Broilers	Free State	
205069 YS H6	2012	Broilers	Free State	
208097	2013	Broilers	Free State	
208136	2013	Layers	Gauteng	
208232	2013	Broilers	North West	
208890	2013	Broilers	Free State	
208981	2013	Broilers	Free State	
208982	2013	Broilers	Mpumalanga	
212412	2013	Grandparents	Gauteng	
213416	2013	Broilers	Namibia	OR742750
215665	2013	Broilers	North West	
215735	2013	Broilers	Eswatini	
216935	2013	Unknown	Unknown	
217716	2013	Layers	Gauteng	
218586	2013	Broilers	Mpumalanga	
220197	2013	Broilers	Mpumalanga	
220680	2013	Broilers	Mpumalanga	
222046	2013	Layers	Gauteng	
222493	2013	Broilers	North West	
222625	2013	Broilers	North West	
222760	2013	Layers	Gauteng	OR742730
223677	2013	Layers	Eastern Cape	
224387	2013	Unknown	Unknown	
225510	2013	Unknown	Gauteng	
226220	2013	Broilers	North West	
226600	2013	Broilers	North West	
226789	2013	Unknown	KwaZulu Natal	
227152	2013	Broilers	KwaZulu Natal	
227659	2013	Broilers	North West	
227829	2013	Broilers	North West	
228016	2013	Broilers	North West	
229015	2013	Broilers	Free State	
229079	2013	Broilers	Free State	
229081	2013	Unknown	Gauteng	
229507	2013	Broilers	Free State	
230968	2013	Broilers	North West	
231139	2013	Broilers	Free State	OR742755
231217	2013	Broilers	Gauteng	
231808	2013	Broilers	North West	
231832	2013	Broilers	Mpumalanga	
232718	2013	Broilers	North West	
232719	2013	Broilers	Gauteng	
233942	2013	Broilers	Mpumalanga	OR742749
233979	2013	Broilers	North West	
234109	2013	Broilers	Free State	
234993	2013	Broilers	North West	
235198	2013	Broilers	Free State	OR727111
235447	2013	Broilers	North West	
236910	2013	Broilers	North West	
236912	2013	Broilers	North West	
238153	2013	Grandparents	KwaZulu Natal	PQ738165
240525	2013	Broilers	Free State	
242100	2013	Broilers	North West	
243570	2013	Breeders	North West	
244155	2013	Broilers	Free State	
244663	2013	Broilers	Free State	

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
245067	2013	Broilers	Western Cape	
206101	2013	Broilers	Mpumalanga	OR704348
209783 CE	2013	Broilers	North West	
209783 TR	2013	Broilers	North West	
209842 H2	2013	Breeders	North West	
209842 H2	2013	Breeders	North West	
210882 H1	2013	Layers	Gauteng	OR742727
210882 H3	2013	Layers	Gauteng	
221316 - ORG	2013	Broilers	North West	
221316 - CE	2013	Broilers	North West	
221316 TR	2013	Broilers	North West	
222042 H1	2013	Rearing	North West	
222042 H2	2013	Rearing	North West	
225250 H1	2013	Broilers	Namibia	OR742751
225250 H5	2013	Broilers	Namibia	
225518 H10	2013	Broilers	North West	
225518 H11	2013	Broilers	North West	
225518 H12	2013	Broilers	North West	
226668 H2	2013	Unknown	Unknown	OR742731
226827 HD	2013	Unknown	Unknown	OR742729
226827 HE	2013	Unknown	Unknown	
226827 HF	2013	Unknown	Unknown	
227831 TR	2013	Broilers	North West	
227831 TR	2013	Broilers	North West	
229207 CE	2013	Broilers	Free State	
229207 TR	2013	Broilers	Free State	
229498 H1	2013	Broilers	North West	
229498 H2	2013	Broilers	North West	
232786 H4	2013	Unknown	Unknown	
232786 H4	2013	Unknown	Unknown	
233429 CE	2013	Broilers	North West	
233429 CE	2013	Broilers	North West	
234962 H13	2013	Broilers	North West	
234962 H7	2013	Broilers	North West	
235104 TR	2013	Layers	Western Cape	
236104 BR	2013	Broilers	North West	OR742766
236104 CE	2013	Broilers	North West	
244155	2014	Broilers	Free State	OR742736
246538	2014	Broilers	Western Cape	
249371	2014	Breeders	Gauteng	OR742762
253792	2014	Broilers	Free State	
253810	2014	Broilers	Free State	
253811	2014	Broilers	Free State	
256015	2014	Broilers	Limpopo	
259695	2014	Broilers	North West	
260228	2014	Broilers	Free State	
260229	2014	Broilers	Free State	
260600	2014	Vaccine production	Gauteng	OR742738
260884	2014	Broilers	Free State	
261158	2014	Broilers	Free State	
263752	2014	Broilers	Free State	
266932	2014	Broilers	North West	
266968	2014	Broilers	Free State	
267693	2014	Broilers	Mpumalanga	
267739	2014	Broilers	Free State	
267839	2014	Broilers	Western Cape	
268083	2014	Broilers	Gauteng	
268083	2014	Broilers	Gauteng	
268361	2014	Broilers	Gauteng	

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
269875	2014	Broilers	Free State	
270254	2014	Broilers	North West	
274387	2014	Broilers	Free State	
274626	2014	Broilers	Free State	
275478	2014	Broilers	Free State	
275644	2014	Broilers	Free State	
276515	2014	Broilers	Mpumalanga	
276628	2014	Broilers	Free State	
276753	2014	Broilers	Free State	
276811	2014	Layers	Gauteng	OR742761
276824	2014	Broilers	Free State	
277553	2014	Broilers	Free State	
277560	2014	Broilers	North West	
278583	2014	Broilers	Free State	
278628	2014	Broilers	Free State	
278832	2014	Broilers	Free State	
280023	2014	Broilers	Free State	
281216	2014	Broilers	Free State	
281572	2014	Broilers	Free State	
281574	2014	Broilers	Free State	
281975	2014	Broilers	Free State	
284195	2014	Broilers	Western Cape	
287871	2014	Broilers	North West	
288325	2014	Layers	Gauteng	
289015	2014	Broilers	North West	
295637	2014	Layers	Gauteng	
245842 H2	2014	Broilers	Free State	
245842 H3	2014	Broilers	Free State	
259214 S1	2014	Breeders	North West	PQ738164
259214 S2	2014	Breeders	North West	OR742757
264213 H1	2014	Broilers	Gauteng	
264213 H1	2014	Broilers	Gauteng	
264213 H2	2014	Broilers	Gauteng	
269246 AF	2014	Broilers	KwaZulu Natal	OR742732
269246 BR	2014	Broilers	KwaZulu Natal	
269246 CT	2014	Broilers	KwaZulu Natal	
269246 KID	2014	Broilers	KwaZulu Natal	OR742733
271729 H1	2014	Broilers	Free State	
271729 H2	2014	Broilers	Free State	
274025 H	2014	Broilers	Free State	
274025 S	2014	Broilers	Free State	
276453 H1	2014	Layers	Gauteng	
276453 H2	2014	Layers	Gauteng	
282562 H15	2014	Broilers	Namibia	OR742752
282562 H4	2014	Broilers	Namibia	
282913 H2	2014	Layers	Gauteng	
282913 H3	2014	Layers	Gauteng	
288392 H2	2014	Broilers	Gauteng	
288392 H3	2014	Broilers	Gauteng	
289368 H10	2014	Broilers	North West	
289368 H10	2014	Broilers	North West	
289368 H7	2014	Broilers	North West	
Unknown	2014	Unknown	Western Cape	
309400	2015	Unknown	Western Cape	
314462	2015	Broilers	Gauteng	
316661	2015	Broilers	Western Cape	
317372	2015	Broilers	North West	
318879	2015	Broilers	North West	
319685	2015	Broilers	Free State	

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
320002	2015	Broilers	Free State	
320057	2015	Broilers	North West	
320213	2015	Broilers	Western Cape	
320709	2015	Broilers	North West	
320844	2015	Broilers	Free State	
321496	2015	Broilers	Western Cape	
321872_1	2015	Breeders	Gauteng	
322303	2015	Broilers	Gauteng	
322393	2015	Broilers	Free State	
322394	2015	Broilers	Free State	
322903	2015	Broilers	Free State	
323131	2015	Broilers	Free State	
325285	2015	Broilers	Gauteng	
327042	2015	Broilers	Free State	
327066	2015	Broilers	Free State	
329067	2015	Broilers	Free State	
329169	2015	Broilers	Free State	
330071	2015	Broilers	Free State	
332216	2015	Broilers	Free State	
332607	2015	Broilers	Limpopo	
332825	2015	Broilers	Free State	
335734	2015	Broilers	Free State	
335734	2015	Broilers	Free State	
335997	2015	Broilers	Namibia	
336625	2015	Broilers	Free State	OR742740
337288	2015	Broilers	Free State	
338905	2015	Broilers	Free State	
339318	2015	Broilers	Free State	
339989	2015	Broilers	Free State	
340340	2015	Broilers	Gauteng	
340461	2015	Broilers	Gauteng	
340744	2015	Broilers	Gauteng	
341521	2015	Broilers	Gauteng	
342217	2015	Broilers	North West	
344201	2015	Breeders	North West	
344383	2015	Broilers	Mpumalanga	
344385	2015	Broilers	Free State	
344385	2015	Broilers	Free State	
345298	2015	Broilers	Gauteng	
345568	2015	Broilers	Free State	
346464	2015	Broilers	Gauteng	
347675	2015	Broilers	Free State	OR742759
348514	2015	Broilers	North West	
348519	2015	Broilers	North West	
348520	2015	Broilers	North West	
348521	2015	Broilers	North West	
349150	2015	Broilers	Gauteng	
349476	2015	Broilers	North West	
349480	2015	Broilers	North West	
351011	2015	Broilers	Free State	
351288	2015	Broilers	Free State	
351505	2015	Broilers	Free State	
305670 H2	2015	Broilers	Gauteng	
305670 H3	2015	Broilers	Gauteng	
305670 H4	2015	Broilers	Gauteng	
309115 H3	2015	Broilers	Gauteng	
309115 H8	2015	Broilers	Gauteng	
313190 H1	2015	Broilers	North West	
313190 H3	2015	Broilers	North West	

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
327985 H12	2015	Broilers	North West	
327985 H18	2015	Broilers	North West	
336344 H1	2015	Broilers	Gauteng	
336344 H2	2015	Broilers	Gauteng	
336344 H7	2015	Broilers	Gauteng	
336344 H8	2015	Broilers	Gauteng	
337109 H5	2015	Broilers	Free State	
337109 H7	2015	Broilers	Free State	
346613 H2	2015	Broilers	Free State	
346613 H4	2015	Broilers	Free State	
347477 H2	2015	Broilers	North West	OR727108
347477 H3	2015	Broilers	North West	
347626 H1	2015	Broilers	Gauteng	
347626 H2	2015	Broilers	Gauteng	
348513 AF	2015	Broilers	North West	
348513 CAM	2015	Broilers	North West	
348513 CAM	2015	Broilers	North West	
348517 H1	2015	Broilers	North West	
348517 H2	2015	Broilers	North West	
348517 H6	2015	Broilers	North West	
350676 C3	2015	Broilers	North West	
350676 C5	2015	Broilers	North West	
351290 H2	2015	Broilers	North West	
351290 H9	2015	Broilers	North West	
351290 H9	2015	Broilers	North West	
355673	2016	Broilers	North West	
363621	2016	Broilers	Gauteng	
372100	2016	Layers	Gauteng	
374409	2016	Broilers	Mpumalanga	OR742745
375003	2016	Broilers	Free State	
377455	2016	Broilers	Free State	OR727109
377465	2016	Broilers	Free State	
377467	2016	Broilers	Free State	
379353	2016	Broilers	Free State	
383258	2016	Broilers	Gauteng	
383258	2016	Broilers	Gauteng	
388559	2016	Broilers	Free State	
392670	2016	Broilers	Free State	
392673	2016	Broilers	Free State	
403218	2016	Broilers	Free State	OR742760
358886 AF H6	2016	Broilers	Gauteng	
358886 H4	2016	Broilers	Gauteng	
358886 YS H6	2016	Broilers	Gauteng	
359396 H4	2016	Broilers	Namibia	
359396 H5	2016	Broilers	Namibia	
409284	2017	Broilers	North West	
462411	2017	Broilers	Free State	
461064 H2	2017	Broilers	Free State	OR742756
461064 H4	2017	Broilers	Free State	
461064 H6	2017	Broilers	Free State	
526182	2018	Broilers	Gauteng	
526250	2018	Broilers	North West	OR727110
530520 C1	2018	Broilers	North West	OR742746
531407	2018	Broilers	North West	
531796	2018	Broilers	Western Cape	
537307 D	2018	Broilers	Western Cape	OR742747
537309	2018	Broilers	Western Cape	
533511 H9	2018	Broilers	Free State	
533551 H6	2018	Layers	Free State	

<b>Isolate<sup>†</sup></b>	<b>Year</b>	<b>Production system</b>	<b>Province/ Country</b>	<b>Accession no.</b>
538641 B4	2018	Broilers	Namibia	
538641 B5	2018	Broilers	Namibia	OR742734
537307	2019	Unknown	Unknown	
545467	2019	Broilers	Western Cape	
550819	2019	Broilers	Western Cape	
564876	2019	Broilers	Unknown	PQ738163
568903	2019	Breeders	Mpumalanga	OR742735
579119	2019	Broilers	Eastern Cape	OR742764
586150	2019	Breeders	Gauteng	
592655	2019	Broilers	KwaZulu Natal	
599490	2019	Broilers	North West	
601368	2019	Broilers	KwaZulu Natal	
603902	2019	Broilers	Mpumalanga	
605307	2019	Unknown	Unknown	
606426	2019	Unknown	Unknown	
608301	2019	Unknown	Unknown	
608305	2019	Unknown	Unknown	
578946 N2	2019	Layers	Gauteng	
578946 N5	2019	Layers	Gauteng	
578946 N6	2019	Layers	Gauteng	
599479 H3	2019	Broilers	North West	
599479 H4	2019	Broilers	North West	
617999	2020	Unknown	Unknown	OR742741
626739	2020	Unknown	Unknown	OR742728
634004	2020	Unknown	Unknown	
634038	2020	Unknown	Unknown	
635300	2020	Unknown	Unknown	
638883	2020	Unknown	Unknown	OR742742
656517	2020	Unknown	Unknown	
658187	2020	Unknown	Unknown	
659486	2020	Unknown	Unknown	
659489	2020	Unknown	Unknown	
662543	2020	Unknown	Unknown	
638634 IV	2020	Unknown	Unknown	
658421 H1	2020	Unknown	Unknown	

<sup>†</sup>H1, H2, H3 or N1, N2 or C1, C2 or B1, B2 etc., refer to different poultry houses on the same farm.